

VALVED PROSTHESIS WITH POROUS SUBSTRATE

ABSTRACT

An implantable prosthesis can be formed from an improved biocompatible material that provides for cellular colonization of the biocompatible material. Specifically, the biocompatible material is a rigid porous material. In embodiments of particular interest, the implantable prosthesis is a mechanical heart valve prosthesis with a rigid occluder. In some embodiments, the rigid occluder is formed from the biocompatible material. A filler comprising a hydrogel or a structural protein can be located within the pores. In some embodiments, a bioactive agent is within the pores. In some embodiments, the rigid occluder is formed from a polymer material, a carbonaceous solid or a ceramic material. The pores can extend through the rigid material.

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